AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) An image pick-up apparatus for picking up a plurality of images being chronologically arranged along time-series to provide an image, comprising:

a means for obtaining information about changes in gray level value between said plurality of images; and

a means for determining a timing for selecting ~~extracting~~ at least one of said plurality of picked up images,

wherein said selection is based on a ~~results~~ from said obtained information.

2. (Previously Presented) The image pick-up apparatus according to Claim 1, wherein said means for obtaining information compares said gray level value of pixels in an image of said plurality of images with similarly positioned pixels in another image of said plurality of images, and obtains a number of pixels whose said gray-level value has increased and a number of pixels whose said gray-level value has decreased.

3. (Previously Presented) The image pick-up apparatus according to Claim 2, wherein said means for determining a timing determines a timing for extracting one image from said plurality of images,when said number of pixels with increase in said gray-level value is less than the number of pixels with decrease in said gray level value .

4. (Previously Presented) The image pick-up apparatus according to Claim 2, wherein said means for determining a timing determineses a timing for extracting one image from said plurality of images when a predetermined threshold value of pixel numbers is greater than an absolute value of a difference between said number of pixels with increase in said gray-level value and the number of pixels with decrease in said gray-level value.

5. (Previously Presented) The image pick-up apparatus according to Claim 3, wherein, said image information obtaining means for each image in said plurality of images obtains a number of pixels whose said gray-level value exceeds a predetermined gray-level threshold value; and

said timing determining means determines said timing for extracting said one image, when said number of pixels of the one image with said gray-level value above the gray-level threshold value exceeds a predetermined pixel number threshold.

6. (Previously Presented) The image pick-up apparatus according to Claim 2, wherein said image information obtaining means for each image in said plurality of imagaes obtains a number of pixels with said gray-level value exceeding a predetermined gray level threshold value ; and

said timing determining means determines said timing for extracting one image from said plurality of images, when said number of pixels with said gray-level value exceeding said predetermined gray level threshold value outnumbers a predetermined pixel numbers threshold,

and further when an absolute value of a difference between said number of pixels with increase

in said gray-level value and the number of pixels with decrease in said gray-level value is less

than a second predetermined pixel number threshold.

7. (Previously Presented) The image pick-up apparatus according to Claim 2, wherein

said plurality of images comprises at least two successive images which had been successively

picked up by said image pick-up apparatus.

8. (Previously Presented) The image pick-up apparatus according to Claim 7, wherein a

first image from said at least two successive images is a first frame and a second image from said

at least two images is a second frame.

9. (Previously Presented) The image pick-up apparatus according to Claim 8, wherein

said apparatus further comprises:

an image picking up means for picking up images;

a memory means for storing said images; comprising first memory means and second

memory means for said plurality of images, and

a data processing means comprising: a pixel comparing means, a pixel number counting

means for counting a number of said pixels whose gray level value has changed, and said timing

determining means, and

an output means.

10. (Previously Presented) The image pick-up apparatus according to Claim 9, wherein said first frame is stored in said first memory means and said second frame picked up immediately after said first frame is stored in said second memory means.

11. (Previously Presented) The image pick-up apparatus according to Claim 9, wherein said pixel comparing means compares a gray level value of each pixel in said first frame with a gray level value of each pixel in said second frame pixel corresponding to said each pixel in said first frame.

12. (Previously Presented) The image pick-up apparatus according to Claim 1, wherein said image processing comprises a fingerprint image data processing.

13. (Currently Amended) The image pick-up method for picking up a plurality of images being chronologically arranged along time-series to provide an image, comprising:

obtaining information about changes in gray level value between said plurality of images; and

deciding a timing at which at least one of said plurality of picked up images is to be extracted selected,

wherein said selection is based upon on a results obtained from said obtained information.

14. (Previously Presented) The image pick-up method according to Claim 13, wherein obtaining said information further comprises:

comparing said gray level value of pixels in one image from said plurality of images with similarly positioned pixels of another from said plurality of images, and obtaining a number of pixels in said one image whose said gray-level value has increased and a number of pixels in said one image whose said gray-level value has decreased.

15. (Previously Presented) The image pick-up method according to Claim 14, wherein determing a timing for extracting at least one image from said plurality of images is based on , when said number of pixels with increase in said gray-level value is less than the number of pixels with decrease in said gray-level value.

16. (Previously Presented) The image pick-up method according to Claim 14, wherein determining a timing for extracting an image, is based on a predetermined threshold value of pixel numbers being greater than an absolute value of a difference between said number of pixels with increase in said gray-level value and the number of pixels with decrease in said gray-level value .

17. (Previously Presented) The image pick-up method according to Claim 13, wherein:

said step of obtaining said information obtains a number of pixels of an inmage of said plurality of images having said gray-level value exceeding a predetermined gray level threshold value; and

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said step of deciding a timing for extracting one image decides a timing where said

number of pixels with said gray-level value exceeding said predetermined gray level threshold

value outnumbers a predetermined threshold value of pixel numbers, and further where said

number of pixels with increase in said gray-level value is less than the number of pixels with

decrease in said gray-level value.

18. (Previously Presented) The image pick-up method according to Claim 13, wherein:

said step of obtaining information obtains a number of pixels in an image from said

plurality of images, with said gray-level value exceeding a predetermined gray level threshold

value ; and

said step of determining a timing determines said timing when said number of pixels with

said gray-level value exceeding a predetermined gray level threshold value outnumbers a

predetermined threshold value of pixel numbers, and further when an absolute value of a

difference between said number of pixels with increase in said gray-level value and the number

of pixels with decrease in said gray-level value is less than a second predetermined pixel number

threshold.

19. (Previously Presented) The image pick-up method according to Claim 13, wherein

said plurality of images comprises at least two successive images which had been successively

picked up by said image pick-up method.

20. (Original) The image pick-up method according to Claim 13, wherein a first image

from said at least two successive images comprises a first frame and a second image from said at

least two successive images comprises a second frame.

21. (Previously Presented) The image pick-up method according to Claim 13, wherein

said method further comprises:

picking up said plurality of images with an image picking up means;

storing said images by storing said first frame image data from said at least two

successive images into a first memory means and storing said second frame image data from said

at least two successive images into a second memory means;

comparing and counting number of pixels with a change in gray level value by using data

processing means; and

determing a timing to extract at least one suitable image for image processing, and

outputting said at least one suitable image.

22. (Previously Presented) The image pick-up method according to Claim 13, wherein

said method further comprises: comparing said gray level value of each one of said pixels of

said first frame with a gray level value of each one similarly positioned pixels of said second

frame.

23. (Previously Presented) The image pick-up method according to Claim 13, wherein

said image processing comprises a fingerprint image data processing.